CLAIMS

1. (Currently Amended) A device comprising:

a memory; and

a processor coupled with the memory, wherein the processor is adapted to:

generate a schedule for coordinating a wireless communication session for wirelessly exchanging data ~~with only~~ between the processor and a first peripheral device only during a first time window having a designated start time and a designated end time, and for also coordinating wireless communications for wirelessly exchanging data ~~with only~~ between the processor and a second peripheral device only after the end time of the first time window;

wirelessly transmit at least one multi-poll scheduling frame that encodes the schedule;

wirelessly exchange data with the first peripheral device ~~after~~ only during the scheduled first time window ~~starts~~;

complete exchanging data with the first peripheral device before the first time window ends;

~~then~~ wirelessly transmit a rescheduling frame dynamically enabling the second peripheral device to begin wireless communication before the end of the first time window when the data exchange with the first peripheral device completes before the designated end time for the first time window; and

~~then~~ wirelessly exchange data with the second peripheral device before the first time window ends pursuant to the rescheduling frame.

2. (Original) The device of claim 1, wherein the rescheduling frame is a null frame.

3. (Original) The device of claim 1, wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity, and the processor is further adapted to ÷ encode data about the periodicity in the multi-poll scheduling frame.

4. (Original) The device of claim 3, wherein the rescheduling frame is a null frame.

5. (Currently Amended) A device comprising:

a memory; and

a processor coupled with the memory, wherein the processor is adapted to:

wirelessly receive at least one multi-poll scheduling frame;

decode from the wirelessly received multi-poll scheduling frame a schedule for wireless communications with another device only during a first time window having a defined start time and end time and for ~~a~~ subsequent wireless communications during a second time window having a defined start time and end time that does not overlap with the first time window during which to exchange data;

during the first time window, wirelessly receive a rescheduling frame enabling wireless communications for the second time window before the end time of the first time window;

dynamically reschedule wireless communications during the second time window to begin before the end of the first time window in response to the rescheduling frame; and

~~then~~ wirelessly exchange data during the rescheduled second time window before the first time window ends.

6. (Original) The device of claim 5, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

7. (Original) The device of claim 5, wherein the rescheduling frame is a null frame.

8. (Original) The device of claim 5, wherein the processor is further adapted to decode from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.

9. (Original) The device of claim 8, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

10. (Original) The device of claim 8, wherein the rescheduling frame is a null frame.

11. (Currently Amended) An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one device, result in:

generating a schedule for wirelessly exchanging data during a wireless communication session with ~~only~~ a first wireless peripheral device only during a first time window, and for wirelessly exchanging data with ~~only~~ a second peripheral device only after the first time window;

wirelessly transmitting at least one multi-poll scheduling frame that encodes the schedule;

wirelessly exchanging data with the first peripheral device after the scheduled first time window starts;

completing wirelessly exchanging data with the first peripheral device before the first time window ends;

~~then~~ wirelessly transmitting a rescheduling frame to the second peripheral device that dynamically during the same wireless communication session enables the second peripheral device to start wirelessly exchanging data before the end of the first time window; and

~~then~~ wirelessly exchanging data with the second peripheral device before the first time window ends.

12. (Original) The article of claim 11, wherein the rescheduling frame is a null frame.

13. (Original) The article of claim 11,

wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity,

and the instructions further result in:

encoding data about the periodicity in the multi-poll scheduling frame.

14. (Original) The article of claim 13, wherein the rescheduling frame is a null frame.

15. (Currently Amended) An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one wireless device, result in:

wirelessly receiving at least one multi-poll scheduling frame;

decoding from the received multi-poll scheduling frame a schedule for a wireless communication session that identifies a first time window defining a wireless communication start time and a wireless communication stop time and ~~for~~ a subsequent second time window defining a wireless communication start time and a wireless communication stop time during which to wirelessly exchange data, the wireless communication start time for the second time window being after the wireless communication stop time for the first time window;

during the first time window, receiving a rescheduling frame directing wireless communication during the second time window to begin before the wireless communication stop time for the first time window;

dynamically rescheduling the second time window during the wireless communication session in response to the rescheduling frame; and

~~then~~ wirelessly exchanging data during the rescheduled second time window before the wireless communication stop time for the first time window ~~ends~~.

16. (Original) The article of claim 15, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

17. Original) The article of claim 15, wherein the rescheduling frame is a null frame.

18. (Original) The article of claim 15, wherein the instructions further result in:

decoding from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.

19. (Original) The article of claim 18, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

20. (Original) The article of claim 18, wherein the rescheduling frame is a null frame.

21. (Currently Amended) A method comprising:

generating a schedule for wirelessly exchanging data with ~~only~~ a first peripheral device during a first time window, and for wirelessly exchanging data with ~~only~~ a second peripheral device only after the first time window ends, the schedule defining a specific wireless communication start time and a wireless communication stop time for wirelessly communicating data during the first time window;

wirelessly transmitting at least one multi-poll scheduling frame that encodes the schedule;

wirelessly exchanging data with the first peripheral device ~~after~~ only during the scheduled first time window ~~starts~~;

completing wirelessly exchanging data with the first peripheral device before the wireless communication stop time for the first time window ~~ends~~;

~~then~~ wirelessly transmitting a rescheduling frame that directs the second peripheral device to begin wireless communication before the wireless communication stop time for the first time window; and

~~then~~ wirelessly exchanging data with the second peripheral device before the end of the first time window ~~ends~~ in response to the reschedule frame.

22. (Original) The method of claim 21, wherein the rescheduling frame is a null frame.

23. (Original) The method of claim 21, wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity, and further comprising:

encoding data about the periodicity in the multi-poll scheduling frame.

24. (Original) The method of claim 23, wherein the rescheduling frame is a null frame.

25. (Currently Amended) A method comprising:

wirelessly receiving at least one multi-poll scheduling frame associated with a wireless communication session;

decoding from the received multi-poll scheduling frame a schedule for a first time window and for a subsequent second time window during which to wirelessly exchange data, the first and second time windows specifying non-overlapping wireless communication periods that each have an associated beginning wireless communication start time and an ending communication stop time;

during the first time window, wirelessly receiving a rescheduling frame that dynamically redirects the second time window to start before the end of the first time window;

rescheduling the second time window in response to the rescheduling frame; and

~~then~~ wirelessly exchanging data during the rescheduled second time window before the first time window ends.

26. (Original) The method of claim 25, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

27. (Original) The method of claim 25, wherein the rescheduling frame is a null frame.

28. (Original) The method of claim 25, further comprising:

decoding from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.

29. (Original) The method of claim 28, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

30. (Original) The method of claim 28, wherein the rescheduling frame is a null frame.